

**Abstract of the Disclosure**

Methods and apparatus are disclosed for treating physiological problems, and for providing rapid, efficacious transdermal treatment, for example, of muscle sprains, erectile dysfunction, or baldness, without requiring the use of needles or other invasive interventions. A topical therapeutic agent and ultrasound energy are applied to a tissue surface, e.g., the skin, such that the ultrasound enhances transdermal penetration of the agent. The invention is especially useful in localized delivery of a controlled dosage of a therapeutic agent to the small blood vessels and capillaries beneath the skin's surface.